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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,917	02/05/2004	Kwong Tat Chan	155634-0155	7390

1622 7590 03/30/2005

IRELL & MANELLA LLP
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EXAMINER

SLAVITT, MITCHELL R

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/773,917	Applicant(s) CHAN ET AL.	
	Examiner Mitchell R Slavitt	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☒ Claim(s) 3 and 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrlich et al. (Ehrlich) in view of Valeri.

Regarding claim 1, Ehrlich teaches in his Abstract a method for writing servo information onto a disk of a hard disk drive. A reference (first) servo pattern is written onto a disk and a second servo pattern is written onto the disk without using the servo writer that was used to write the first pattern. Although the servo writer is coupled to the head-disk assembly, there does not appear to be any necessity for the coupling and therefore could also be an off-line servo writer. Ehrlich teaches at col 6, lines 47-57, the reference servo patterns may be part of the final product pattern, or they may be discarded and overwritten. Ehrlich does not expressly state a final servo pattern is written onto the same track written to by the off-line servo writer. Valeri teaches at page 4, para [0034], last sentence, if a partial pattern is created, the disk drive may fill in the remainder using self-servo writing techniques. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the method of Ehrlich with the teaching of Valeri to limit the operation of a servowriter so as to remove certain unwanted pattern artifacts, such as those attributable to disk vibration, during a self-

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servo-writing process following reference pattern writing within a servo writer environment. See Ehrlich at col 5, lines 29-33.

Regarding claim 2, it follows that where Valeri teaches a partial pattern created as the reference pattern, the final servo pattern would contain more bits per track than the reference pattern.

Regarding claim 4, Ehrlich teaches at col 12, lines 35-39, only one pass is required to write the reference pattern.

Allowable Subject Matter

3. Claims 3 and 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3, dependent on claim 2, has the distinguishing element wherein the reference servo pattern includes A, B, and C servo bits, and the final servo pattern includes A, B, C, and D servo bits.

Claim 5, dependent on claim 1, has the distinguishing element wherein the final servo pattern is written in two passes.

Claim 6, dependent on claim 1, has the distinguishing element wherein writing a reference calibration servo pattern onto the disk with the off-line servo track writer.

Claims 8-12 are allowed as the prior art does not teach or suggest the applicant's invention. Independent claim 8 teaches a method for writing servo information onto a disk of a hard disk drive. The distinguishing element of the claim is writing a final servo pattern onto the track of the disk in two passes.

Prior Art of Record

4. The following prior art of record is not relied upon but is provided since it is considered relevant to the applicant's invention. Magee teaches a first servo pattern written onto a track by a separate device. Subsequent to writing the servo pattern, a hard disk drive is assembled and the servo pattern on the disk is used to create additional tracks with the same pattern.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitchell R Slavitt whose telephone number is (571) 272-7562. The examiner can normally be reached on M-F (6:30-4:00), 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3/25/05



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
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